

Appl. No. 10/706,347
Amdt. dated February 01, 2006
Reply to Office Action of 11/7/2005

Docket No. A01464

AMENDMENTS TO CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (currently amended) An adhesive composition comprising:
 - (a) 10% to 90% fluid medium, by weight based on the weight of said adhesive composition, and
 - (b) 10% to 90% at least one acrylic polymer composition, by solid weight based on the weight of said adhesive composition, wherein said acrylic polymer composition comprises as polymerized units:
 - (i) at least one monomer with carboxyl functionality, and
 - (ii) at least one carboxyl-reactive monomer, ~~wherein said carboxyl-reactive monomer has molecular weight less than 800; wherein each said carboxyl-reactive monomer in said acrylic polymer composition is selected from the group consisting of glycidyl acrylate, glycidyl methacrylate, and mixtures thereof;~~
wherein said fluid medium is 50% or more water, by weight based on the weight of said fluid medium; and
wherein each polymerized unit of said acrylic polymer composition is a monomer of molecular weight less than 800.
2. (original) The composition of claim 1, wherein said monomer with carboxylic functionality comprises acrylic acid, methacrylic acid, or a mixture thereof.
3. - 5. (cancelled)
6. (currently amended) The composition of claim 1, wherein said acrylic polymer composition comprises at least one latex polymer, ~~and wherein said fluid medium is 50% or more water, by weight based on the weight of said fluid medium.~~

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7. (currently amended) The composition of claim 1, wherein said acrylic polymer composition comprises at least one bifunctional acrylic polymer that comprises as polymerized units:
- (i) at least one monomer with carboxyl functionality, and
 - (ii) at least one carboxyl-reactive monomer, ~~wherein said carboxyl-reactive monomer has molecular weight less than 800~~ wherein each said carboxyl-reactive monomer in said bifunctional acrylic polymer is selected from the group consisting of glycidyl acrylate, glycidyl methacrylate, and mixtures thereof.
8. (withdrawn) A method for bonding substrates comprising: applying a layer of an adhesive composition to a substrate; drying or allowing to dry said layer of said adhesive composition; and contacting at least one subsequent substrate to said layer of said adhesive composition, wherein said adhesive composition comprises:
- (a) 10% to 90% fluid medium, by weight based on the weight of said adhesive composition, and
 - (b) 10% to 90% at least one acrylic polymer composition, by solid weight based on the weight of said adhesive composition, wherein said acrylic polymer composition comprises as polymerized units:
 - (i) at least one monomer with carboxyl functionality, and
 - (ii) at least one carboxyl-reactive monomer, wherein said carboxyl-reactive monomer has molecular weight less than 800.
9. (new) The composition of claim 1, wherein said acrylic polymer composition is dispersed in said fluid medium.
10. (new) An adhesive composition comprising:
- (a) 10% to 90% fluid medium, by weight based on the weight of said adhesive composition, and

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(b) 10% to 90% at least one acrylic polymer composition, by solid weight based on the weight of said adhesive composition, wherein said acrylic polymer composition comprises as polymerized units:

- (i) at least one monomer with carboxyl functionality, and
- (ii) at least one carboxyl-reactive monomer, wherein each said carboxyl-reactive monomer in said acrylic polymer composition is selected from the group consisting of acetoacetoxyethyl acrylate, acetoacetoxyethyl methacrylate, and mixtures thereof;

wherein said fluid medium is 50% or more water, by weight based on the weight of said fluid medium; and

wherein each polymerized unit of said acrylic polymer composition is a monomer of molecular weight less than 800.

11. (new) The composition of claim 10, wherein said monomer with carboxylic functionality comprises acrylic acid, methacrylic acid, or a mixture thereof.
12. (new) The composition of claim 10, wherein said acrylic polymer composition comprises at least one latex polymer.
13. (new) The composition of claim 10, wherein said acrylic polymer composition comprises at least one bifunctional acrylic polymer that comprises as polymerized units:
 - (i) at least one monomer with carboxyl functionality, and
 - (ii) at least one carboxyl-reactive monomer, wherein each said carboxyl-reactive monomer in said bifunctional acrylic polymer is selected from the group consisting of acetoacetoxyethyl acrylate, acetoacetoxyethyl methacrylate, and mixtures thereof.
14. (new) The composition of claim 10, wherein said acrylic polymer composition is dispersed in said fluid medium.

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15. (new) An adhesive composition comprising:

- (a) 10% to 90% fluid medium, by weight based on the weight of said adhesive composition, and
- (b) 10% to 90% at least one acrylic polymer composition, by solid weight based on the weight of said adhesive composition, wherein said acrylic polymer composition comprises as polymerized units:
 - (i) at least one monomer with carboxyl functionality, wherein each said monomer with carboxyl functionality in said adhesive composition is a macromonomer consisting of, as polymerized units:
 - (A) at least one acid monomer selected from acrylic acid, methacrylic acid, and mixtures thereof, and
 - (B) optionally, at least one ester monomer selected from alkyl acrylate esters, alkyl methacrylate esters, and mixtures thereof, and
 - (ii) at least one carboxyl-reactive monomer, wherein each said carboxyl-reactive monomer in said acrylic polymer composition is selected from the group consisting of glycidyl acrylate, glycidyl methacrylate, and mixtures thereof;

wherein said fluid medium is 50% or more water, by weight based on the weight of said fluid medium.

16 (new) The composition of claim 15, wherein said acrylic polymer composition comprises at least one latex polymer.

17. (new) The composition of claim 15, wherein said acrylic polymer composition comprises at least one bifunctional acrylic polymer that comprises as polymerized units:

- (i) at least one monomer with carboxyl functionality, wherein each said monomer with carboxyl functionality in said adhesive composition is a macromonomer consisting of, as polymerized units:

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- (A) at least one acid monomer selected from acrylic acid, methacrylic acid, and mixtures thereof, and
 - (B) optionally, at least one ester monomer selected from alkyl acrylate esters, alkyl methacrylate esters, and mixtures thereof, and
 - (ii) at least one carboxyl-reactive monomer, wherein each said carboxyl-reactive monomer in said bifunctional acrylic polymer is selected from the group consisting of glycidyl acrylate, glycidyl methacrylate, and mixtures thereof;
18. (new) The composition of claim 15, wherein said acrylic polymer composition is dispersed in said fluid medium.
19. (new) An adhesive composition comprising:
- (a) 10% to 90% fluid medium, by weight based on the weight of said adhesive composition, and
 - (b) 10% to 90% at least one acrylic polymer composition, by solid weight based on the weight of said adhesive composition, wherein said acrylic polymer composition comprises as polymerized units:
 - (i) at least one monomer with carboxyl functionality, wherein each said monomer with carboxyl functionality in said adhesive composition is a macromonomer consisting of, as polymerized units:
 - (A) at least one acid monomer selected from acrylic acid, methacrylic acid, and mixtures thereof, and
 - (B) optionally, at least one ester monomer selected from alkyl acrylate esters, alkyl methacrylate esters, and mixtures thereof, and
 - (ii) at least one carboxyl-reactive monomer, wherein each said carboxyl-reactive monomer in said acrylic polymer composition is selected from the group consisting of acetoacetoxyethyl acrylate, acetoacetoxyethyl methacrylate, and mixtures thereof;

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wherein said fluid medium is 50% or more water, by weight based on the weight of said fluid medium.

20. (new) The composition of claim 19, wherein said acrylic polymer composition comprises at least one latex polymer.
21. (new) The composition of claim 19, wherein said acrylic polymer composition comprises at least one bifunctional acrylic polymer that comprises as polymerized units:
 - (i) at least one monomer with carboxyl functionality, wherein each said monomer with carboxyl functionality in said adhesive composition is a macromonomer consisting of, as polymerized units:
 - (A) at least one acid monomer selected from acrylic acid, methacrylic acid, and mixtures thereof, and
 - (B) optionally, at least one ester monomer selected from alkyl acrylate esters, alkyl methacrylate esters, and mixtures thereof, and
 - (ii) at least one carboxyl-reactive monomer, wherein each said carboxyl-reactive monomer in said bifunctional acrylic polymer is selected from the group consisting of acetoacetoxyethyl acrylate, acetoacetoxyethyl methacrylate, and mixtures thereof;
22. (new) The composition of claim 19, wherein said acrylic polymer composition is dispersed in said fluid medium.